

APPARATUS AND METHOD FOR MAKING CARBON FIBERS**Abstract of the Disclosure**

- 5 A method and apparatus for the carbonization of polyacrylonitrile (PAN) precursor fibers. The apparatus comprises a furnace, or series of furnaces in side-by-side arrangement. Each furnace includes a heater, an air inlet and an air diffusion plate. The fiber is located in the furnace above the air diffuser plate, such that heated air is evenly dispersed over the fibers. The method generally comprises the steps of
- 10 heat treating the PAN precursor in an oxidizing environment to stabilize the fiber, and then further heat treating the stabilized fiber in an oxidizing environment to carbonize the stabilized fiber. The method can be carried out in a single furnace, or can be carried out in a series of furnaces in a continuous process.